

Wilhelmi Bedwelli
Trigonum Architectonicum:

THE CARPENTARS RVLE

Explained, reformed, and enlarged:

That is,

A Table seruynge for the more exact, and speedy measuring of Boord, Glasse, Stone, and such like, both Plaines and Solids, by the Foot, then euer heretofore hath in this kinde, bee set out or taught by any:

Inuented, and first published in the yeare 1612, by Wilhelmi Bedwell, Parson of S. Ethelburghs London.

Of the use of the Trigon in measuring of Plaines by the foot.

To measure by this Table, it, by two numbers knowne, to finde the third unknowne. Things here to be measured, are magnitudes. And magnitudes or bignesses, are quantities which haue either one or more dimensions, to wit, length, breadth, or thicknesse. These dimensions are here represented by numbers. Of the two numbers affigged, the one must be sought amongst those on the one side of the Trigon: The other amongst those underneath the base of the same. The numbers, as you see, doe stand against the spaces enclosed betwene two parallel lines. Having found your numbers giuen, let your eye direct you through the opposite spaces against which they stand, from the one ascending; from the other sidewaies, or contrariwise, vntill you obserue both the spaces to meet, or fall into one. The number there found, is the dimension sought. Plaines are magnitudes long and broad: Or, Surfaces are magnitudes of two dimensions, namely, length and breadth. Here the two numbers giuen, are that of the breadth, and the number of 12; 1 A Board of 18 inches broad, and 24 foot long, is to be measured. Here the breadth 18 taken amongst those vnder the base, and 12 amongst those on the side, doe in the quadrat where their spaces meet, giue 8 inches for the length desired. Now because 8 inches is contained in 24 foot 36 times: therefore the board giuen, doth containe 36 foot of plaine measure. 2 A pane of Glasse is 8 inches broad. Here 8 taken amongst those on the side; and 12 underneath the base, doe set vs out 18 inches for the length. If the breadth bee greater then 24, that is, then any number enclosing the Trigon, then take the halfe, one third part, one quarter, &c. and the number found shall be two, three, or foure foot, &c. of plaine measure. 3 A Table of one yard and a quarter (or 48 inches) broad is to be measured. Here 45 inches is greater then any number about the Trigon; therefore I take 15 the third part of the breadth, and 15 and 12 I finde to point to 9 and $\frac{1}{2}$ for the length desired. Therefore I auerre, that every 9 inches, and $\frac{1}{2}$ parts of an inch in length of that table, shall conteine 3 foot of plaine measure. 4 A roome of 16 foot broad, and 48 foot long is to be floored; I would know how many foot of Board it will aske to couer it. Here 16 foot, that is, 192 inches is greater then any about the Trigon; therefore I take 16 the 12 part thereof: and 16 and 12 doe allow 9 inches for the length. Now because 9 inches are contained in 48 foot 64 times; and 64 times 12 are 768. Therefore I say, the floore will require 768 foot of board to couer it.

The use of the Trigon in the measuring of Solids by the foote.

Solids or bodies haue three dimensions, to wit, length, breadth, and thicknesse. And of these commonly the breadth and thicknesse are giuen; the length is so assured. 1 A square timber stick of 12 inches broad, and 12 inches thick, is to bee. Here 12 and 12 doe point out 12 inches for the length desired. 2 A 18 inches broad, and 16 thick. Here I finde 6 inches for the length either one or both of numbers giuen, be greater then any about the Trigon, to either the one halfe, one third, and the number found shall answere in a yare. 3 Suppose a stone were 4 foot (or 48 inches) over, and 8 in. Here 24 the halfe of 48, and 8, doe asigne 9 inches for the length. Therefore I say, that every 9 inches in length of that stone, shall be a foot of solid measure. 4 Admit the stone were a yard square, that is, broad, and 36 inches thick. Here both the dimensions, to wit, breadth and thicknesse, are greater then any of those about the Trigon. I take 18 and 18, the halfe of each; and I finde them to meet in the middle, where I have 5 inches and $\frac{1}{2}$. Therefore I say, that every 5 inches, and $\frac{1}{2}$ inch doth conteine 4 foot of stone.

To measure by that our Ruler, being by the croſſing of two lines given, to finde out the third: And the eye not able in many cases precisely to discern at what partes of an inch that croſſing is; some haue desired that those ſeverall meetings might bee noted on the verge of the Ruler, either above or beneath; but that being apt to be done without conuention, I doe aduife them to haue recourſe to this our Trigon, ſhall, God willing, shortly bee declared: for this ſtraightneſſe of roome will admet of no long diſcouerſe. Vale.

7	27
6	$35\frac{1}{4}$
5	48
4	$69\frac{1}{2}$
3	$57\frac{1}{2}$
2	$49\frac{1}{2}$
1	$43\frac{1}{2}$
1718	864

24	23	3	24
23	3	24	23
22	$3\frac{1}{2}$	$3\frac{1}{2}$	23
21	$3\frac{1}{2}$	$3\frac{1}{2}$	22
20	$3\frac{1}{2}$	$3\frac{1}{2}$	21
19	$4\frac{1}{2}$	$4\frac{1}{2}$	20
18	$4\frac{1}{2}$	$4\frac{1}{2}$	19
17	$5\frac{1}{2}$	$5\frac{1}{2}$	18
16	$5\frac{1}{2}$	$5\frac{1}{2}$	17
15	$6\frac{1}{2}$	$6\frac{1}{2}$	16
14	$7\frac{1}{2}$	$7\frac{1}{2}$	15
13	$8\frac{1}{2}$	$8\frac{1}{2}$	14
12	$10\frac{1}{2}$	$9\frac{1}{2}$	13
11	12	$11\frac{1}{2}$	12
10	$14\frac{1}{2}$	$13\frac{1}{2}$	11
17 $\frac{1}{2}$	$15\frac{1}{2}$	$14\frac{1}{2}$	10
19 $\frac{1}{2}$	$17\frac{1}{2}$	16	9
21 $\frac{1}{2}$	$19\frac{1}{2}$	18	8
24 $\frac{1}{2}$	$22\frac{1}{2}$	$20\frac{1}{2}$	7
28 $\frac{1}{2}$	$26\frac{1}{2}$	24	6
34 $\frac{1}{2}$	$31\frac{1}{2}$	$28\frac{1}{2}$	5
43 $\frac{1}{2}$	$39\frac{1}{2}$	36	4
57 $\frac{1}{2}$	$52\frac{1}{2}$	48	3
86 $\frac{1}{2}$	$78\frac{1}{2}$	72	2
172 $\frac{1}{2}$	$157\frac{1}{2}$	144	1
1718	864	576	